

What is claimed is:

1. A low cost oil/grease removal assembly comprising:
  - a container having a bottom, a top, a sidewall, an input end and discharge end, an inlet at the input end adapted to receive effluent from a sink drain and a drain connection at the discharge end, the drain connection being spaced above the bottom and below the top to define a static water level for liquid in the container,
  - 5 a baffle in the container extending downwardly near the discharge end to a level below the static water level to allow water to flow below the baffle from the inlet to the drain connection but retaining oil/grease floating on the water upstream of the baffle,
  - 10 means for intermittently raising the liquid level in the container above the static water level, and
  - 15 a port in the container upstream of the baffle at an elevation such that oil/grease floating on water in the container upstream of the baffle can flow from the container out through the port when the liquid level in the container is raised above the static water level.
2. The apparatus according to claim 1 wherein the means for raising the liquid level is operably associated with the drain connection.
- 20 3. The apparatus according to claim 2 wherein the means for raising the liquid level is a weir having a pierced portion associated with the drain connection, so that low

volume flows pass through the pierced portion of the weir and high volume flows raise the liquid level until liquid flows over the weir.

4. The apparatus according to claim 3 wherein the piercing takes the form of a weep

5 slot.

5. The apparatus according to claim 3 wherein the piercing takes the form of a hole.

6. The apparatus according to claim 2 wherein the means for raising the liquid level

10 is a valve body that normally does not occlude the drain connection, but when closed restricts flow through a lower portion of the drain connection to raise the liquid level to a height so that liquid flows over the valve body.

7. The apparatus according to claim 6 wherein the valve is manually operated.

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8. The apparatus according to claim 7 wherein the valve has a normal open position and a closed position achieved by pressing a plunger in opposition to a spring that restores the valve to the normal open position when pressing is completed.

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9. The apparatus according to claim 1 wherein the port is in a sidewall.

10. The apparatus according to claim 1 wherein the container has two opposed sidewalls, each of which has a closeable fitting, and the port is adapted to be mounted to either one of the fittings, with the other fitting not being used.

5        11. The apparatus according to claim 1 wherein the port has a valve that can be actuated to release oil/grease through the port when the liquid level in the container is above the static water level.

10        12. The apparatus according to claim 11 wherein the valve for the port is a ball valve.

13. The apparatus according to claim 1 wherein the port has a rotating spout that has a normal, non-discharging position and is rotatable to a discharge position.

14. The apparatus as claimed in claim 13 in which the non-discharging position locates an outlet in the spout above the liquid level in the container when the liquid level is intermittently raised by the means for intermittently raising the liquid level in the container above the static water level

20        15. The apparatus according to claim 1 wherein the port has a flexible spout that has a non-discharging position and is positionable to a discharge position.

16. The apparatus as claimed in claim 15 in which the non-discharging position locates an outlet in the spout above the liquid level in the container when the liquid level

is intermittently raised by the means for intermittently raising the liquid level in the container above the static water level.

17. The apparatus according to claim 1, wherein the housing is made of roto-molded  
5 plastic.

18. A method of removing oil/grease from kitchen effluent comprising:  
locating a container indoors,  
connecting a kitchen drain to an inlet to the container,  
10 connecting a sewage outlet to a drain connection of the container, the drain connection being spaced above the container's bottom and below its top to define a static water level for liquid in the container,  
discharging effluent water containing oil/grease from the kitchen drain into the inlet,  
holding the effluent water containing oil/grease in the container for a period to allow  
15 oil/grease to float to the top of the contained effluent water,  
permitting grey water to flow from a portion of the container out through the drain connection,  
intermittently raising the liquid level in the container above the static water level, and  
while the liquid level is raised, discharging floating oil/grease from a port above the  
20 static water level.

19. The method according to claim 18 wherein raising the liquid level takes place because of an operation at the drain connection.

5           20. The method according to claim 18 wherein raising the liquid level includes increasing a rate of effluent flow into the inlet above the rate that can pass a piercing in a weir associated with the drain connection, to raise the liquid level in the container until grey water flows over the weir.

10           21. The method according to claim 18 wherein raising the liquid level includes closing a valve body that normally does not occlude the drain connection, to restrict flow through a lower portion of the drain connection to raise the liquid level to a height so that grey water flows over the valve body.

15           22. The method according to claim 21 wherein closing the valve is achieved by manually pressing on a plunger.

23. The method according to claim 22 further comprising restoring the valve to a normal open position when pressing is completed by the force of a spring

20           24. The method according to claim 18 further comprising at about the time of the acts of connecting, selecting a convenient one of two opposed sidewalls of the container, each of which has a closeable fitting, and mounting the port to the fitting on the selected sidewall, with the other fitting not being used.

25. The method according to claim 18 wherein discharging floating oil/grease includes actuating a valve in the port to release oil/grease through the port.

5 26. The method according to claim 18 wherein discharging floating oil/grease includes rotating a spout from a normal, non-discharging position to a discharge position.

10 27. The method according to claim 18 wherein discharging floating oil/grease includes rotating a spout from a normal, non-discharging position having a spout outlet above the liquid level in the container when the liquid level is intermittently raised.

15 28. The method according to claim 18 wherein discharging floating oil/grease includes adjusting a flexible spout from a non-discharging position to a discharge position.

20 29. A method of removing oil/grease from kitchen effluent comprising:  
discharging effluent water containing oil/grease from a kitchen drain into an inlet to a container located in a building in which the kitchen is located,  
holding the effluent water containing oil/grease in the container for a period to allow oil/grease to float to the top of the contained effluent water,  
permitting grey water to flow from a low portion of the container out through a drain connection to a sewage outlet that defines a static water level for liquid in the container,

intermittently raising the liquid level in the container above the static water level, and while the liquid level is raised, discharging floating oil/grease from the container through a port above the static water level.

5                   30. A method of installing an apparatus for removal of oil/grease from kitchen effluent comprising:

                  locating a container indoors,

                  connecting a kitchen drain to an inlet to the container,

                  connecting a sewage outlet to a drain connection of the container, the drain

10                  connection being spaced above the container's bottom and below its top to define a static water level for liquid in the container,

                  selecting one of two opposed sidewalls of the container, each of which has a closeable fitting above the static water level, and

                  mounting a discharge port to the fitting on the selected sidewall,

15                  so that a user can discharge effluent water containing oil/grease from the kitchen drain into the inlet, hold the effluent water in the container for a period to allow oil/grease to float to the top of the contained effluent water, permit grey water to flow out through the drain connection, intermittently raise the liquid level in the container above the static water level, and, discharge floating oil/grease from the port while the liquid level is

20                  raised.